

## **Comments on Swinomish TJWQP proposal**

Lisa Chang to: Tiffany Waters

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Hi Tiffany,

Here are our comments on the TJWQP proposal. Neither of us used the template for this review, and the other reviewer sent me an e-mail with brief comments which I am pasting below.

I struggled quite a bit with this one (I am Reviewer 1 and my comments are in the attached document). I had some fundamental issues with the proposed work as presented. I didn't comment so much on the detail and nuts and bolts of the proposal (I am assuming NWIFC will be looking at budget, etc. in detail). I hope my comments are not too far out of orbit. Let me know if you have questions.

Lisa



Comments on TJWQP.docx

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Reviewer 2's comments:

### **1. Quality Assurance Plan**

- I think it would be important to have a QAPP for this project. They are collecting field information and in order for the data to meet our requirements they need a QAPP.
- This would include the various elements of a QAPP: sampling design, sample collection, sampling protocols, etc.
- Maybe USGS already has one from past sampling efforts and they would need an amendment, but it was not clear from the proposal

### **2. Use of data**

- I did go to the website cited in the proposal and it does have a nice presentation of the data by location.
- However, I am not sure how the data is used after this.
- Do they anticipate the different tribes will use or Ecology will use?
- They talk a little in the outcomes but not very specific how they will use

## **EPA comments on TWJQP proposal – Reviewer 1**

The proposal requests funding to support a portion of a coordinator position and some equipment needed to conduct the 2011 Tribal Journey Water Quality Project (TJWQP). The TJWQP appears to be a unique, multi-faceted training, capacity-building, and Salish Sea water quality data collection effort that has been conducted each summer for 3 years (2011 will be the fourth time).

Each of the three outputs for Year 1 (a report on the 2011 data collection and analysis; water quality training sessions; and website, presentations, and outreach opportunities) should be further developed before work on this project is funded.

### **Comments on Output 1: Data collection and analysis**

#### **1. Survey data**

Several statements are made about the purpose of the data that will be produced, such as to “quantify variability, detect changes and trends, and identify impaired water bodies” in the Salish Sea (p. 4, Objective 1), to detect “large-scale oceanographic/climate and site-scale land-use influences” (p. 3, Justification); to produce a “more comprehensive understanding of processes that influence the Salish Sea ecosystem including land use, nearshore circulation and climate change” (p. 3, Justification); to “determine presence and extent of harmful algal blooms” (p. 3, Justification); to determine “impacts and vulnerability along gradients in urbanization, watershed activities, and regional oceanography” (p. 3, Justification).

While the data gathered during the Journey are informative and unique in several important respects, it is difficult to determine based on information in the proposal or the cited references if some of the objectives mentioned above will be achieved in a rigorous way. The synoptic data gathering aspect of TJWQP does not seem to be built around studies designed to achieve the above goals. The TJWQP objectives as described in Akin and Grossman (2010) are (1) to strengthen the USGS-Coast Salish partnership; (2) to integrate USGS scientific expertise with traditional means of gathering environmental information; and (3) to promote awareness and stewardship of the Salish Sea (p. 3, Akin and Grossman 2010). No open-literature, peer-reviewed journal articles appear to have been produced by 3 previous years of TJWQP. Also, Akin and Grossman (2010) explain that the TJWQP “does not attempt to influence the planning process because the TJWQP is an added component to, not a driver of, the Tribal Journey” (p. 5).

I think it is important to focus on and emphasize the aspects/outputs of the project that can feasibly be achieved by the project partners. The workplan can focus and expand on the kinds of analysis that can be performed with the data to be gathered (e.g., if the data is primarily a source of synoptic water quality information in numerous segments of the Salish Sea that can identify anomalies for reporting and/or further investigation, the workplan can state this, and also discuss how the data will be analyzed – e.g., as in previous years, the data can be compared to water quality standards or other applicable criteria and the results of these analyses can trigger recommendations for additional monitoring or studies).

## 2. Special studies

Two "special studies" are proposed: (a) water property depth profiles and analysis of samples for plankton community composition, dissolved nutrients, and chlorophyll; and (b) three-month time-series of water properties at three locations (Samish Bay, Nanaimo estuary, and Nisqually delta).

Focused, targeted studies are valuable and it is positive that these special studies were prompted by results of the previous year's TJWQP. However, again, this aspect of the proposal needs to be further developed to justify support.

- Basic information on the study design, objectives, or methods (e.g., what quantitative methods will be used to analyze the results) should be provided. Details can be provided in a QAPP, but basic information should be provided in the proposal so the reviewers can evaluate the proposed work. Otherwise it is difficult to evaluate this portion of the proposal.
- Do the local entities (Tribes, local communities, agencies) in the vicinity of the special studies also have an interest in these studies, or have a role. The partners and their roles for these special studies should be identified. Will any access or other permissions be required? Have these been obtained?
- What is the plan for feeding the results of these special studies back into the protection and restoration of Salish Sea? Who and what are the audience for these special studies? Is the intent to develop these as studies to be published in the peer-reviewed scientific literature? Or will results only be posted on the TJWQP web site? Who are the users of the web site? Would this be the most effective way of ensuring the results of this work are fed into the management of Salish Sea?

## 3. Use of data in Salish Sea management

It is also asserted that the "information collected during the annual Tribal Journeys will advise Coast Salish leadership in making policy decisions regarding Salish Sea resources" (p. 6, Akin et al. 2008). – would contribute to the restoration and protection of Puget Sound. This is a very important outcome and should be fleshed out. For example, it would be helpful to a reviewer if the applicant explained how the data, reports, training, and other materials from previous years was used to advise decisions affecting Salish Sea restoration and protection.

### Comments on Output 2: Water quality training sessions

#### 1. Water quality training

Building water quality monitoring capacity among Coast Salish communities is stated to be a significant aspect of the TJWQP (p. 4, Akin and Grossman 2010; and proposal, p. 4). This is potentially constructive and beneficial for Puget Sound protection and restoration, but needs to be further developed to achieve this.

First, to demonstrate that this aspect is appropriate for funding, it would be helpful for the applicant to explain how they have determined that such training is a high priority for participating Tribes/First

Nations, and how they are tailoring the training to address the participants' stated needs. In addition, the applicant should identify quantitative outputs for the training aspect of the project, such as "X number of Coast Salish tribal/first nations members will take an active role in obtaining and presenting water quality findings;" and "USGS will conduct X trainings, covering X, Y, and Z, for canoe families and other Journey participants." These are just examples, but there need to be measurable outputs for all aspects of the project, so that both the subawardee and funding agencies, and public, can understand the progress and benefit of the funded work.

The applicant may also wish to consider developing a training module or exercise around the relationship between the water quality data collected during the Journey, and the regulatory protection of a water body. For example, the applicant states that the project has "applications to Washington State's biennial marine water quality assessments and 303(d) designations." The applicant could develop a training module relating to how these assessment and regulatory processes work. As an example, the group "River Network" has designed training modules for how individuals can get involved in TMDL, NPDES, water quality standards, and other Clean Water Act regulatory processes, and designing a training module for TJWQP similar to this – where participants can get to see the regulatory process in action, and can learn how to apply data to achieve positive environmental protection using Clean Water Act tools, could be a very powerful training tool for the protection of the Salish Sea. (River Network's guidance, "Clean Water Act – An Owner's Manual" is available at [https://www.rivernetwork.org/marketplace/product\\_details.php?item\\_id=55334](https://www.rivernetwork.org/marketplace/product_details.php?item_id=55334) but may also be available at various libraries.

## 2. Integration of traditional knowledge and science

Another stated objective of the TJWQP is to "integrate the scientific expertise provided by USGS with traditional means to gather and synthesize information on impacts to water quality, nearshore habitats, and Salish Sea resources in a way that would promote capacity building for the Coast Salish" (p. 5, Akin et al., 2008). In addition, the proposal states that the "exchanges made between science and traditional knowledge within indigenous communities along the Journey facilitate increased awareness of ecosystem issues, conservation and stewardship."

Again, while the effective integration of traditional knowledge into Salish Sea restoration could potentially be very powerful and helpful to ecosystem protection, the proposal does not indicate what the outputs of this aspect of the proposal are, and how they will be fed into any Salish Sea or Puget Sound forums. It is also a significant concern that in the 2008 and 2010 reports that document previous TJWQPs (Akin et al., 2008; Akin and Grossman, 2010), the section entitled "Blending Science and Tradition" is repeated essentially verbatim in both documents. Does this mean that this aspect of the project did not produce any notable benefit in 2010? If so, why should it be funded again?

Again, specific outputs should be identified for this objective, such as (the following are just examples; the applicant should provide their own appropriate outputs):

- "The 'Blending Science and Tradition' section of the annual USGS TJWQP report will be expanded with a description of how traditional and Western methods have been integrated, the

results/outcomes of this integrated information for the 2011 Journey, and how the results benefit Salish Sea protection and restoration.”

- “TJWQP results will be presented at XX forums (identify target forums, which might include venues such as the Coast Salish Gathering, Salish Sea Ecosystem Conference, NWIFC water quality meetings, TEK meetings such as ([http://tekinitiative.org/2011 TEK Conferemce.html](http://tekinitiative.org/2011_TEK_Conferemce.html)), or any other appropriate venue). Presentations will include results not only from Western conventional scientific tools (water quality data) but also information developed through traditional means as a result of the TJWQP.”

### **Comments on Output 3: Website, presentations, and outreach opportunities**

More information (target audience; purpose; measures of success (how will the applicant know the website is achieving its purpose); design timeline; etc.) on the website should be provided; otherwise it is difficult to determine whether it should be funded, and the likelihood it will be successfully completed.

### **Other comments**

1. The workplan has not been developed for Years 2-6. If NWIFC awards this project, a condition should be placed in the award that several months before the end of Year 1, the workplan for Year 2 be developed to an acceptable level of detail, and the same for subsequent years
2. The workplan states on p. 5 that 39% of the Tribal Journey Coordinator’s position is funded by the Coast Salish Gathering, but the proposal requests funding for 75% of the Coordinator’s position. Is this an error? Also, will this be a new hire?